

0420 0300



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RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/034,158

DATE: 01/18/2002

TIME: 08:05:39

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Output Set: N:\CRF3\01182002\J034158.raw

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3 <110> APPLICANT: Wei, Zhong-Min  
5 <120> TITLE OF INVENTION: METHOD OF IMPARTING DROUGHT RESISTANCE TO PLANTS  
7 <130> FILE REFERENCE: 21829/230  
9 <140> CURRENT APPLICATION NUMBER: US/10/034,158  
10 <141> CURRENT FILING DATE: 2001-12-20  
12 <150> PRIOR APPLICATION NUMBER: 09/597,840  
13 <151> PRIOR FILING DATE: 2000-06-20  
15 <150> PRIOR APPLICATION NUMBER: 09/013,587  
16 <151> PRIOR FILING DATE: 1998-01-26  
18 <150> PRIOR APPLICATION NUMBER: 60/036,048  
19 <151> PRIOR FILING DATE: 1997-01-27  
21 <160> NUMBER OF SEQ ID NOS: 10  
23 <170> SOFTWARE: PatentIn Ver. 2.1  
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26 <211> LENGTH: 338  
27 <212> TYPE: PRT  
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35 20 25 30  
37 Leu Gly Ser Ser Val Asp Lys Leu Ser Ser Thr Ile Asp Lys Leu Thr  
38 35 40 45  
40 Ser Ala Leu Thr Ser Met Met Phe Gly Gly Ala Leu Ala Gln Gly Leu  
41 50 55 60  
43 Gly Ala Ser Ser Lys Gly Leu Gly Met Ser Asn Gln Leu Gly Gln Ser  
44 65 70 75 80  
46 Phe Gly Asn Gly Ala Gln Gly Ala Ser Asn Leu Leu Ser Val Pro Lys  
47 85 90 95  
49 Ser Gly Gly Asp Ala Leu Ser Lys Met Phe Asp Lys Ala Leu Asp Asp  
50 100 105 110  
52 Leu Leu Gly His Asp Thr Val Thr Lys Leu Thr Asn Gln Ser Asn Gln  
53 115 120 125  
55 Leu Ala Asn Ser Met Leu Asn Ala Ser Gln Met Thr Gln Gly Asn Met  
56 130 135 140  
58 Asn Ala Phe Gly Ser Gly Val Asn Asn Ala Leu Ser Ser Ile Leu Gly  
59 145 150 155 160  
61 Asn Gly Leu Gly Gln Ser Met Ser Gly Phe Ser Gln Pro Ser Leu Gly  
62 165 170 175  
64 Ala Gly Gly Leu Gln Gly Leu Ser Gly Ala Gly Ala Phe Asn Gln Leu  
65 180 185 190  
67 Gly Asn Ala Ile Gly Met Gly Val Gly Gln Asn Ala Ala Leu Ser Ala

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73 Asp Lys Glu Asp Arg Gly Met Ala Lys Glu Ile Gly Gln Phe Met Asp
74 225          230          235          240
76 Gln Tyr Pro Glu Ile Phe Gly Lys Pro Glu Tyr Gln Lys Asp Gly Trp
77          245          250          255
79 Ser Ser Pro Lys Thr Asp Asp Lys Ser Trp Ala Lys Ala Leu Ser Lys
80          260          265          270
82 Pro Asp Asp Asp Gly Met Thr Gly Ala Ser Met Asp Lys Phe Arg Gln
83          275          280          285
85 Ala Met Gly Met Ile Lys Ser Ala Val Ala Gly Asp Thr Gly Asn Thr
86          290          295          300
88 Asn Leu Asn Leu Arg Gly Ala Gly Gly Ala Ser Leu Gly Ile Asp Ala
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103 <400> SEQUENCE: 2
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106 gatctggtat ttcaagtttg ggacaccggg cgtgaactca tgatgcagat tcagccgggg 180
107 cagcaatata ccggcatgtt gcgcacgctg ctgcctcgct gttatcagca ggcggcagag 240
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111 cgatcattaa gataaaggcg gcttttttta ttgcaaaacg gtaacggtga ggaaccgttt 480
112 caccgtcggc gtcactcagt aacaagtatc catcatgatg cctacatcgg gatcggcgctg 540
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132 ttattatgcg gtttatgcgg ttacctggac cggttaatca tcgtcatcga tctgggtacaa 1740
133 acgcacattt tcccgttcac tcgcgtcggt acgcgccaca atcgcgatgg catcttcctc 1800
134 gtcgctcaga ttgcgcggct gatggggaac gccgggtgga atatagagaa actcgccggc 1860
135 cagatggaga cacgtctgcg ataaatctgt gccgtaacgt gtttctatcc gcccttttag 1920
136 cagatagatt gcggtttcgt aatcaacatg gtaatgcggt tccgcctgtg cgccggccgg 1980
137 gatcaccaca atattcatag aaagctgtct tgcaacctacc gtatcgcggg agataccgac 2040
138 aaaatagggc agtttttgcg tggatccgt ggggtgttcc ggcctgacaa tcttgagttg 2100
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142 &lt;210&gt; SEQ ID NO: 3

143 &lt;211&gt; LENGTH: 403

144 &lt;212&gt; TYPE: PRT

145 &lt;213&gt; ORGANISM: Erwinia amylovora

147 &lt;400&gt; SEQUENCE: 3

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151 Ile Gly Gly Ala Gly Gly Asn Asn Gly Leu Leu Gly Thr Ser Arg Gln
152             20             25             30
154 Asn Ala Gly Leu Gly Gly Asn Ser Ala Leu Gly Leu Gly Gly Asn
155             35             40             45
157 Gln Asn Asp Thr Val Asn Gln Leu Ala Gly Leu Leu Thr Gly Met Met
158             50             55             60
160 Met Met Met Ser Met Met Gly Gly Gly Gly Leu Met Gly Gly Gly Leu
161 65             70             75             80
163 Gly Gly Gly Leu Gly Asn Gly Leu Gly Gly Ser Gly Gly Leu Gly Glu
164             85             90             95
166 Gly Leu Ser Asn Ala Leu Asn Asp Met Leu Gly Gly Ser Leu Asn Thr
167             100            105            110
169 Leu Gly Ser Lys Gly Gly Asn Asn Thr Thr Ser Thr Thr Asn Ser Pro
170             115            120            125
172 Leu Asp Gln Ala Leu Gly Ile Asn Ser Thr Ser Gln Asn Asp Asp Ser
173             130            135            140
175 Thr Ser Gly Thr Asp Ser Thr Ser Asp Ser Ser Asp Pro Met Gln Gln
176 145            150            155            160
178 Leu Leu Lys Met Phe Ser Glu Ile Met Gln Ser Leu Phe Gly Asp Gly
179             165            170            175
181 Gln Asp Gly Thr Gln Gly Ser Ser Ser Gly Gly Lys Gln Pro Thr Glu
182             180            185            190
184 Gly Glu Gln Asn Ala Tyr Lys Lys Gly Val Thr Asp Ala Leu Ser Gly
185             195            200            205
187 Leu Met Gly Asn Gly Leu Ser Gln Leu Leu Gly Asn Gly Gly Leu Gly
188             210            215            220
190 Gly Gly Gln Gly Gly Asn Ala Gly Thr Gly Leu Asp Gly Ser Ser Leu
191 225            230            235            240
193 Gly Gly Lys Gly Leu Gln Asn Leu Ser Gly Pro Val Asp Tyr Gln Gln
194             245            250            255
196 Leu Gly Asn Ala Val Gly Thr Gly Ile Gly Met Lys Ala Gly Ile Gln
197             260            265            270

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199 Ala Leu Asn Asp Ile Gly Thr His Arg His Ser Ser Thr Arg Ser Phe
200      275      280      285
202 Val Asn Lys Gly Asp Arg Ala Met Ala Lys Glu Ile Gly Gln Phe Met
203      290      295      300
205 Asp Gln Tyr Pro Glu Val Phe Gly Lys Pro Gln Tyr Gln Lys Gly Pro
206 305      310      315      320
208 Gly Gln Glu Val Lys Thr Asp Asp Lys Ser Trp Ala Lys Ala Leu Ser
209      325      330      335
211 Lys Pro Asp Asp Asp Gly Met Thr Pro Ala Ser Met Glu Gln Phe Asn
212      340      345      350
214 Lys Ala Lys Gly Met Ile Lys Arg Pro Met Ala Gly Asp Thr Gly Asn
215      355      360      365
217 Gly Asn Leu Gln Ala Arg Gly Ala Gly Gly Ser Ser Leu Gly Ile Asp
218      370      375      380
220 Ala Met Met Ala Gly Asp Ala Ile Asn Asn Met Ala Leu Gly Lys Leu
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223 Gly Ala Ala
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228 <211> LENGTH: 1288
229 <212> TYPE: DNA
230 <213> ORGANISM: Erwinia amylovora
232 <400> SEQUENCE: 4
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234 gaggaatacg ttatgagtct gaatacaagt gggctgggag cgtcaacgat gcaaatttct 120
235 atcggcgggtg cgggcggaaa taacgggttg ctgggtacca gtcgccagaa tgctgggttg 180
236 ggtggcaatt ctgcaactgg gctgggcggc ggtaatcaaa atgataccgt caatcagctg 240
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239 ggactgtcga acgcgctgaa cgatatgtta ggcggttcgc tgaacacgct gggtcga 420
240 ggcggcaaca ataccacttc aacaacaaat tcccgcgtg accaggcgtt gggattatac 480
241 tcaacgtccc aaaacgacga ttccacctcc ggcacagatt ccacctcaga ctccagcgac 540
242 ccgatgcagc agctgtgaa gatgttcagc gagataatgc aaagcctgtt tggatgatgg 600
243 caagatggca cccagggcag ttcctctggg ggcaagcagc cgaccgaagg cgagcagaac 660
244 gcctataaaa aaggagtcac tgatgcgctg tcgggcctga tgggtaatgg tctgagccag 720
245 ctcttgggca acgggggact gggaggtggt cagggcggta atgctggcac gggctctgac 780
246 ggttcgtcgc tgggcggcaa agggctgcaa aacctgagcg ggccgggtga ctaccagcag 840
247 ttaggttaac cgtgggttac cggtatcggg atgaaagcgg gcattcaggc gctgaatgat 900
248 atcgggtacg acaggcacag ttcaaccgtt tcttctgcta ataaaggcga tcgggcgatg 960
249 gcgaaggaaa tcggtcagtt catggaccag tatcctgagg tgtttggcaa gccgcagtac 1020
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251 aagccagatg acgacggaat gacaccagcc agtatggagc agttcaacaa agccaaggcg 1140
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258 <211> LENGTH: 341
259 <212> TYPE: PRT
260 <213> ORGANISM: Pseudomonas syringae
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263 Met Gln Ser Leu Ser Leu Asn Ser Ser Ser Leu Gln Thr Pro Ala Met
264 1 5 10 15
266 Ala Leu Val Leu Val Arg Pro Glu Ala Glu Thr Thr Gly Ser Thr Ser
267 20 25 30
269 Ser Lys Ala Leu Gln Glu Val Val Val Lys Leu Ala Glu Glu Leu Met
270 35 40 45
272 Arg Asn Gly Gln Leu Asp Asp Ser Ser Pro Leu Gly Lys Leu Leu Ala
273 50 55 60
275 Lys Ser Met Ala Ala Asp Gly Lys Ala Gly Gly Gly Ile Glu Asp Val
276 65 70 75 80
278 Ile Ala Ala Leu Asp Lys Leu Ile His Glu Lys Leu Gly Asp Asn Phe
279 85 90 95
281 Gly Ala Ser Ala Asp Ser Ala Ser Gly Thr Gly Gln Gln Asp Leu Met
282 100 105 110
284 Thr Gln Val Leu Asn Gly Leu Ala Lys Ser Met Leu Asp Asp Leu Leu
285 115 120 125
287 Thr Lys Gln Asp Gly Gly Thr Ser Phe Ser Glu Asp Asp Met Pro Met
288 130 135 140
290 Leu Asn Lys Ile Ala Gln Phe Met Asp Asp Asn Pro Ala Gln Phe Pro
291 145 150 155 160
293 Lys Pro Asp Ser Gly Ser Trp Val Asn Glu Leu Lys Glu Asp Asn Phe
294 165 170 175
296 Leu Asp Gly Asp Glu Thr Ala Ala Phe Arg Ser Ala Leu Asp Ile Ile
297 180 185 190
299 Gly Gln Gln Leu Gly Asn Gln Gln Ser Asp Ala Gly Ser Leu Ala Gly
300 195 200 205
302 Thr Gly Gly Gly Leu Gly Thr Pro Ser Ser Phe Ser Asn Asn Ser Ser
303 210 215 220
305 Val Met Gly Asp Pro Leu Ile Asp Ala Asn Thr Gly Pro Gly Asp Ser
306 225 230 235 240
308 Gly Asn Thr Arg Gly Glu Ala Gly Gln Leu Ile Gly Glu Leu Ile Asp
309 245 250 255
311 Arg Gly Leu Gln Ser Val Leu Ala Gly Gly Gly Leu Gly Thr Pro Val
312 260 265 270
314 Asn Thr Pro Gln Thr Gly Thr Ser Ala Asn Gly Gly Gln Ser Ala Gln
315 275 280 285
317 Asp Leu Asp Gln Leu Leu Gly Gly Leu Leu Leu Lys Gly Leu Glu Ala
318 290 295 300
320 Thr Leu Lys Asp Ala Gly Gln Thr Gly Thr Asp Val Gln Ser Ser Ala
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331 <211> LENGTH: 1026
332 <212> TYPE: DNA
333 <213> ORGANISM: Pseudomonas syringae
335 <400> SEQUENCE: 6

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VERIFICATION SUMMARY

PATENT APPLICATION: US/10/034,158

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L:9 M:270 C: Current Application Number differs, Replaced Application Number

L:10 M:271 C: Current Filing Date differs, Replaced Current Filing Date